

## **REMARKS/ARGUMENTS**

### **35 USC § 112, first paragraph**

**Claims 1, 3, 6-7, 9, and 12-13** were rejected under 35 USC § 112, 1<sup>st</sup> as being failing to comply with the written description requirement. The applicant respectfully disagrees for various reasons. Nevertheless, and only to advance prosecution in this matter, the applicant amended the claims. More specifically, and with respect to:

Claim 1 has been amended to require the pH of the reaction to be maintained at pH1.5 or lower using HCl. Furthermore, claim 1 was amended to clarify that the fluoride-containing effluent is reacted with an aqueous calcium chloride solution, wherein the reaction is maintained at pH 1.5. Support for pH2 and lower is provided, inter alia, on page 6, lines 8-9, and for pH1.5 and lower in the examples 1-6. Support for the step of reacting is found throughout the specification, and particularly in the abstract.

Claim 7, it appears as though the office would argue that applicant's claimed open-ended range of "at least 2.2%" would not be properly supported. The applicant respectfully disagrees and points to MPEP 2173.05(c)II where open-ended ranges are discussed. Furthermore, claim 7 was amended to clarify that the fluoride-containing effluent is reacted with an aqueous calcium chloride solution, wherein the reaction is maintained at pH 1.5. Support for the step of reacting is found throughout the specification, and particularly in the abstract.

### **35 USC § 103**

**Claims 1, 3, 7, and 9** were rejected under 35 USC § 103 as being obvious over the JP 11-130427 reference, and optionally further in view of the JP 51-110498 reference. The applicant again respectfully disagrees for various reasons.

As amended herein, claims 1 and 7 expressly require a step of "...reacting the produced or residual quantity of hydrochloric acid with a calcium compound to produce an aqueous calcium chloride-containing liquid..." and a further step of "...reusing the aqueous calcium chloride-containing liquid in the aqueous calcium chloride solution in the step of reacting the fluoride-containing effluent..." (Support for these added limitations can be found throughout the specification, and particularly in the abstract).

Therefore, it should be noted that not all of the claimed elements are present in the '427 reference, and combination of the '427 reference with the '498 reference fails to remedy these defects. Consequently, the rejection of claims 1, 3, 7, and 9 as being obvious over the cited art should be withdrawn.

**Claim 6 and 12** were rejected under 35 USC § 103 as being obvious over the JP 11-130427 reference, and optionally further in view of the JP 51-110498 reference, and further in view of Johansing, Jr. (U.S. Pat. No. 5,705,140).

Claims 6 and 12 were canceled and the rejection should be withdrawn. Nevertheless, and with respect to Johansing, Jr., it should be pointed out that this reference relates to a reaction in a combustor at extremely high temperature (see *e.g.*, col 4, ln 18-37), which teaches against the presently claimed subject matter. Therefore, the references fail to teach all of the claimed elements and further teach against the claimed subject matter. Thus, the rejection of claims 6 and 12 as being obvious over the cited art is improper.

**Claim 13** was rejected under 35 USC § 103 as being obvious over the JP 11-130427 reference, and optionally further in view of the JP 51-110498 reference, and further in view of Ohmi et al. (U.S. Pat. No. 5,362,461). The applicant again respectfully disagrees for various reasons.

As noted above, not all of the claim elements are present in the '427 and '498 references, and Ohmi fails to remedy these defects. Moreover, it should be stressed that hydrogen fluoride is directly produced in the Ohmi reference using a reaction process employing sulfuric acid (see *e.g.*, col 3, ln 15 et seq.), which is entirely inconsistent with the claimed process that demands that calcium fluoride recovered by the method according to claim 1 or 7 is supplied as a raw material for producing hydrogen fluoride. Clearly, the '461 reference teaches against the combination with JP '427 and JP '498.

In view of the present amendments and arguments, the applicant believes that all claims are now in condition for allowance. Therefore, the applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,  
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